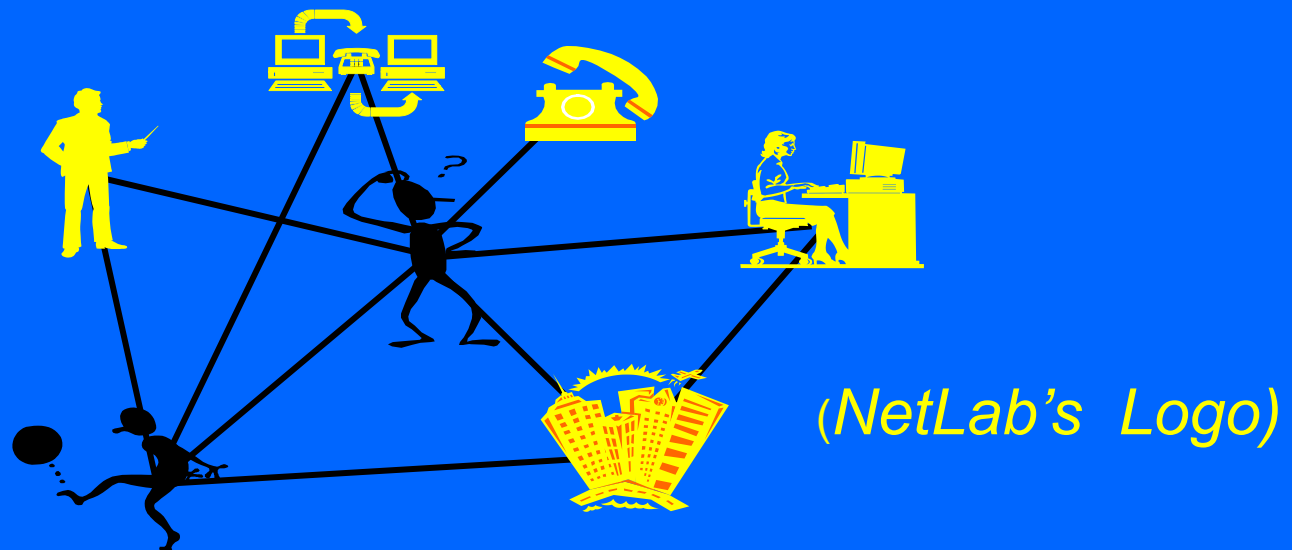


The Triple Revolution & The Turn to Networked Individualism

Barry Wellman

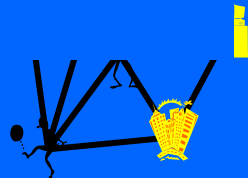
Director, NetLab, Department of Sociology, University of Toronto

Locknote Address to the ACM Web Science Conference, Koblenz, Germany, June 2011



Where I am Coming From

- Literally: New York City → Toronto
- Social Network Analysis in 1960s
 - *Social Structures: A Network Approach*, 1988
- Community Sociology in 1960s-1990+
 - Community as a social network, not locality
 - Personal communities
 - *Networks in the Global Village* , 1998

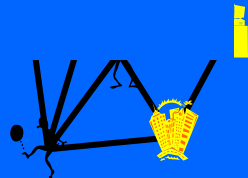


Collaborating with Comp Sci

- 1990 onwards
- Cavecat/Telepresence Distributed Collabor.
 - Ron Baecker, Bill Buxton,
Marilyn Mantei/Tremaine
- GRAND (Graphics/Animation/Design)
Network of Centres of Excellence (Canada)
- NAVEL: Scholarly collaboration in GRAND Across:
 - Disciplines: Comp Sci, Soc Sci, Humanities
 - Geography (University, Province)
 - Projects (54)

Interplay of Tech & Society

- Stating the Non-“Obvious”: *Connected Lives*
- More Friends Than Ever – Contra Turkle
- Local Still Important
- Almost All Online Friends are Offline Too
- Earlier Book – with C. Haythornthwaite
- *Internet in Everyday Life*, 2002
- “*Social Connectivity in America*
– *World Internet Project*
- *Pew Internet in American Life*



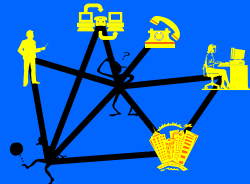
The Triple Revolution

How the Intersection of

1. The Turn from Groups to *Social Networks*
2. The Proliferation & Differentiation of The *Personalized Internet*
3. The *Personal Mobile Always-Accessibility* of Information & Communication

→ → ***“Networked Individualism”***

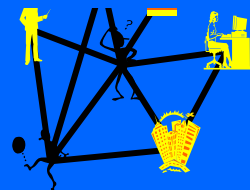
To be an MIT book (2012) Lee Rainie & Wellman:
Networked: The New Social Operating System



The Controversy:

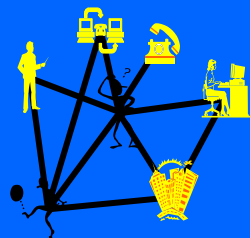
“Social Isolation in America”

- Article in June 2006 *American Soc. Review*
J Miller McPherson, Lynn Smith-Lovin, Matthew Brashears
- *General Social Survey:*
of Americans “Discussing Important Matters”
- Declined 28%: from 2.9 in 1984 to 2.1 in 2005
 - Includes spouses
- 23% of Americans are “social isolates”:
 - Don’t have any confidants – even spouses



The Perennial Question of Social Cohesion (Oi Vey Sociology)

- Thomas Jefferson "The mobs of great cities add just so much to the support of pure government, as sores do to the strength of the human body" (1784, p. 86).
- More simply: Are things falling apart – from urbanization, bureaucratization, industrialization, capitalism/socialism & technological change – to the internet?
- *Tönnies to Turkle*



Ryan Lackay ran an isolated data haven in a WWII anti-aircraft platform in the English Channel: the “Principality of Sealand”. He is a libertarian; his hacker name is “octal”.



From Almost Real, Ann Shin, 2004, National Film Board of Canada

Is email the scourge? the cure?, or the supplement?



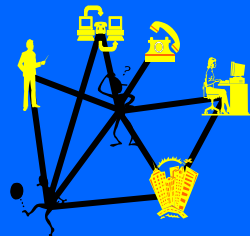
"Hi. My name is Barry, and I check my E-mail two to three hundred times a day."

David Sipress. *The New Yorker* May 28, 2001

Unretouched!

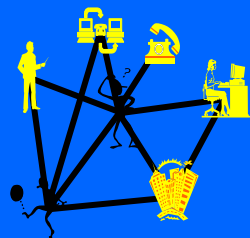
The Return of a Media Moral Panic

- *Washington Post* – twice (Summer 2006)
 - “By some reckoning, social isolation is as big a risk factor for premature death as smoking.” (Mallaby, 6/26)
- “Will this glow [from the Internet] produce a closed generation of socially challenged individuals; humans who are more comfortable with machines than anything else?”
 - Douglas Cornish, *Toronto Globe & Mail*, October 13, 2006,
- Also *NY Times*, *LA Times*, *Financial Post*
- Robert Putnam loved it: fit *Bowling Alone*
 - More family meals → better behaved kids
- Links with fears about *MySpace*, *Facebook*



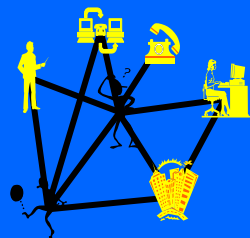
The Social Network Revolution

- The *social network revolution* has provided the opportunities – and stresses – for people to reach beyond the world of tight groups.



People Function More as Networked Individuals

- .. and less as group members
- Social ties and events organized around the **individual** rather than a **social unit** such as a family, neighborhood, or organization
- The **person has become the individual** unit of social connectivity; and not the place,
 - be it household or workplace
- **Agency:** Each person operates own network
- Cell phones and internet allow **person-to-person** contact to supplant place-to-place communication.

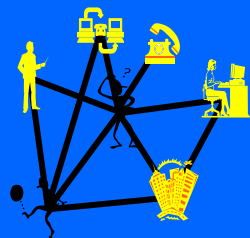


Many meet their social, emotional, and economic needs by tapping into loosely-knit networks of diverse associates rather than relying on tight connections to a relatively small number of core associates

- Many don't have one sure-fire "home" community.
- Looser and more diverse social networks require more choreography and exertion to manage.
- Often, they rely on many specialized relationships to meet their needs. A typical social network might have some members who are good at:
 - meeting local, logistical needs (pet sitting, watering the plants),
 - while others are especially useful when medical needs arise.
 - Yet others (often sisters) provide emotional support.
 - Still others are the ones whose political opinions carry more weight, while others give financial advice, restaurant recommendations, or music and books to enjoy.

Networked individuals have partial membership in multiple networks rather than permanent memberships in settled groups (The Facebook fallacy)

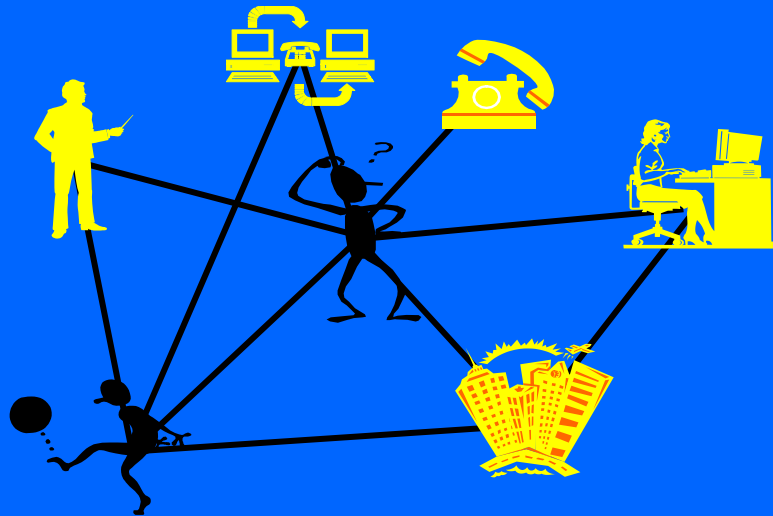
- They must calculate where they can turn for different kinds of help – and what kind of help to offer others as they occupy nodes in others' extended networks.
- They have more transitory relationships than in the past.
- At the same time, they have an easier time reattaching to those from their past even after extended periods of non-contact.
- With a social environment in flux, people must deal with frequent turnover and change in their networks.
“networkers”, “netweavers”, “net jugglers.”



Differentiated Roles

Very Close Ties

- | | |
|-------------------------|------|
| • Kin | • 50 |
| • Friends | • 41 |
| • Neighbors | • 4 |
| • Workmates/Schoolmates | • 5 |



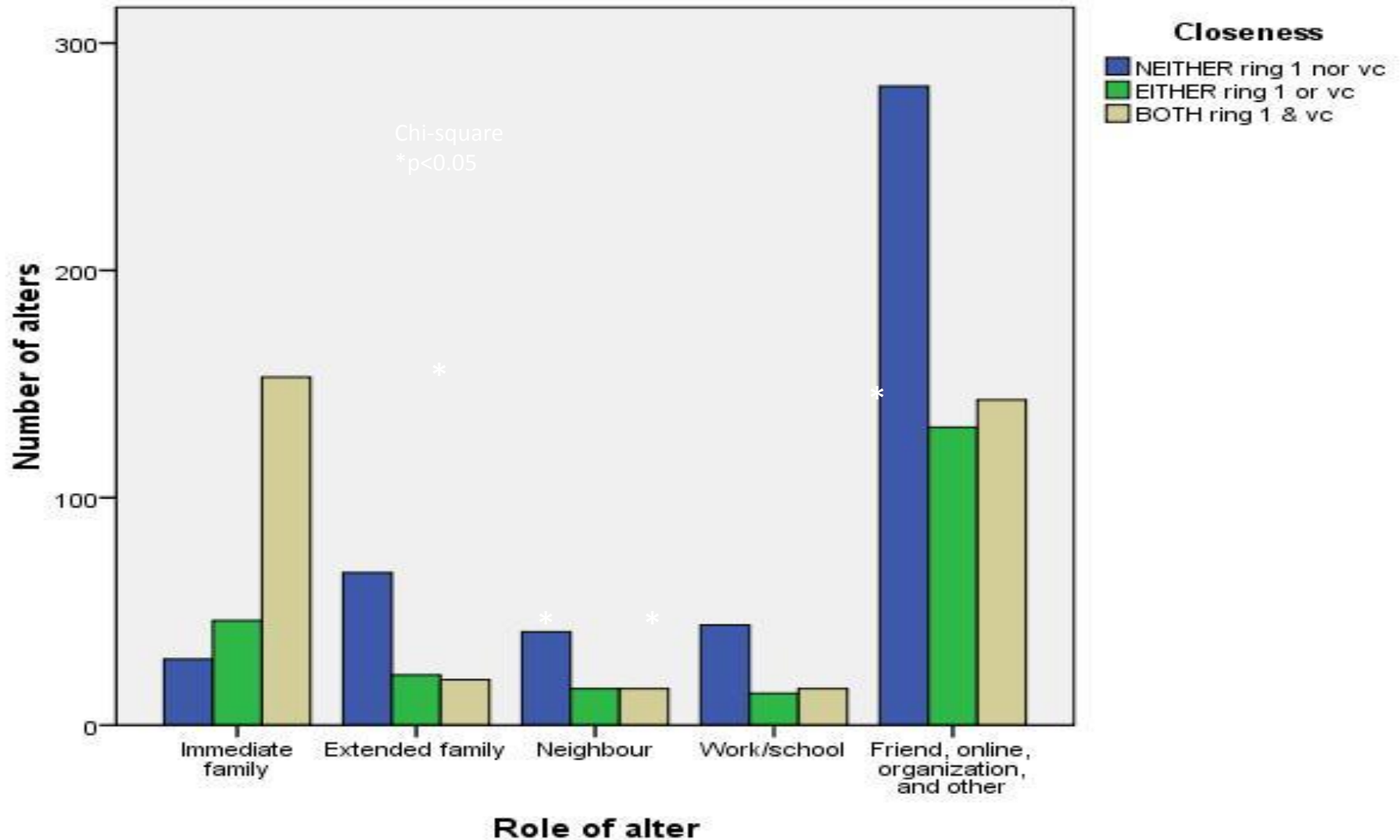
% Kin Same Since 1967

% Neighbors Down

% Friends Up

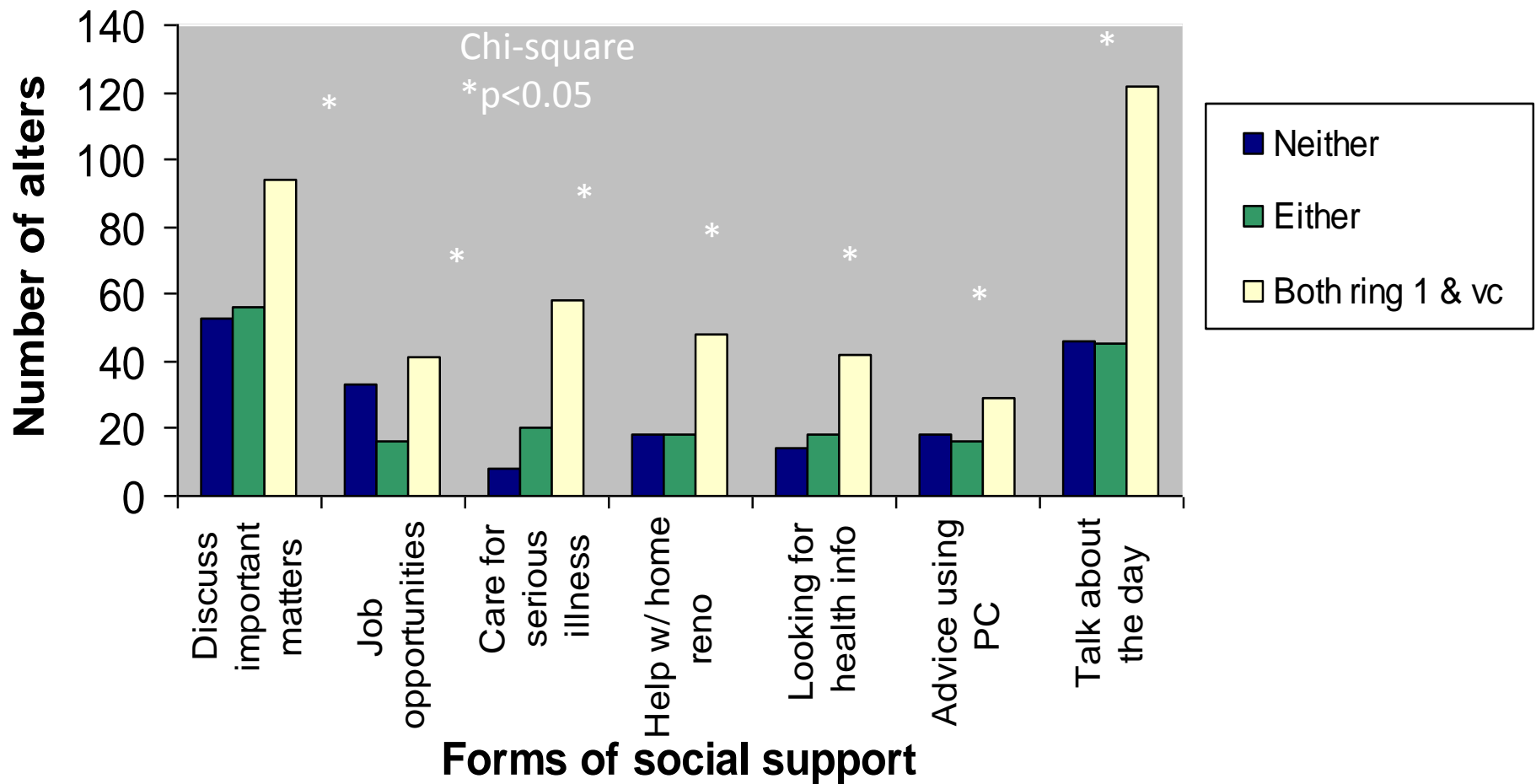
Differentiated Roles

Figure 5: Closeness by role of alter



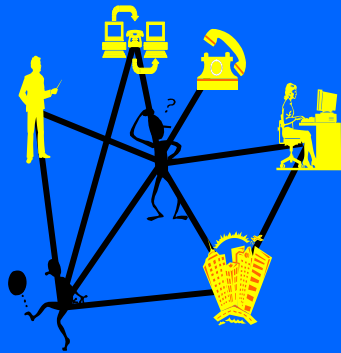
Social support

Figure 2: Closeness by social support

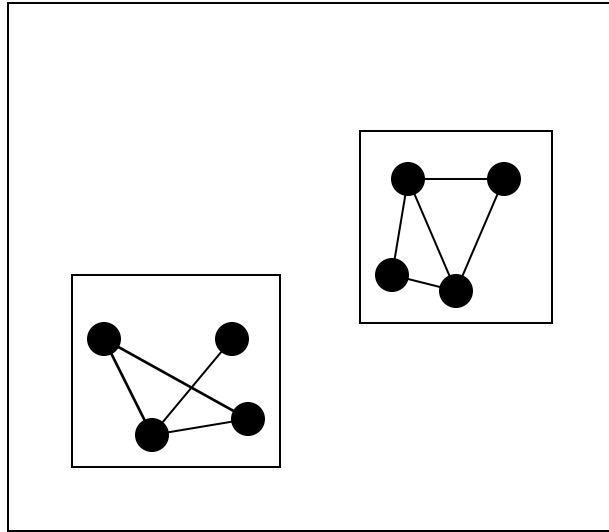


Traditional Small Groups: Door-to-Door

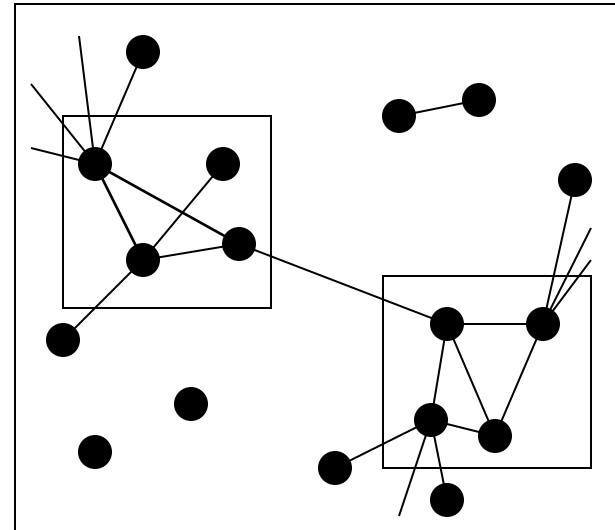
- Old workgroups/ communities based on proximity and kinship
 - *Pre-industrial villages, wandering bands*
- All observe and interact with all
- Deal with only one group
- Knowledge comes only from within the group – and stays within the group



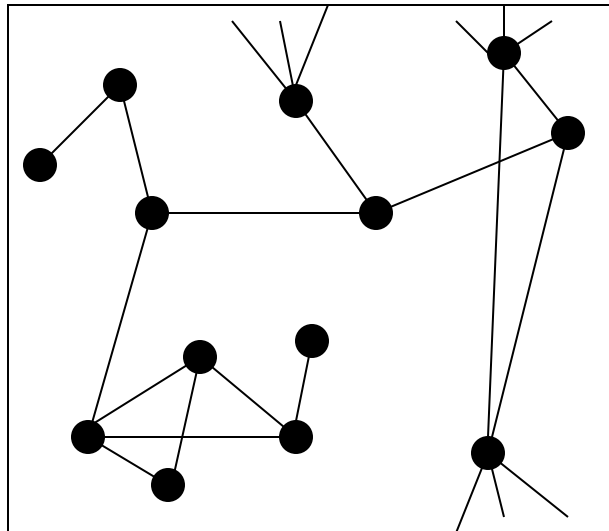
Groups: Door to Door



GloCalization: Place-to-Place



Networked Individualism: Person-to-Person



Three Models of Interpersonal Interaction

Place To Place

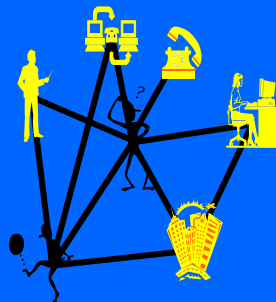
(Phones, Networked PCs, Airplanes, Expressways, RR, Transit)

- Home, office important contexts,
 - *Not intervening space*
- Ramified & sparsely knit: not local solidarities
 - Not neighborhood-based
 - Not densely-knit with a group feeling
- Domestication of socializing
- Partial membership in multiple communities
 - Often based on shared interest
- Connectivity beyond neighborhood, work site
- Household to household / work group to work group

Person To Person: Networked Individualism

(Mobile Phones, Portable Computing)

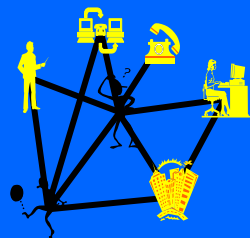
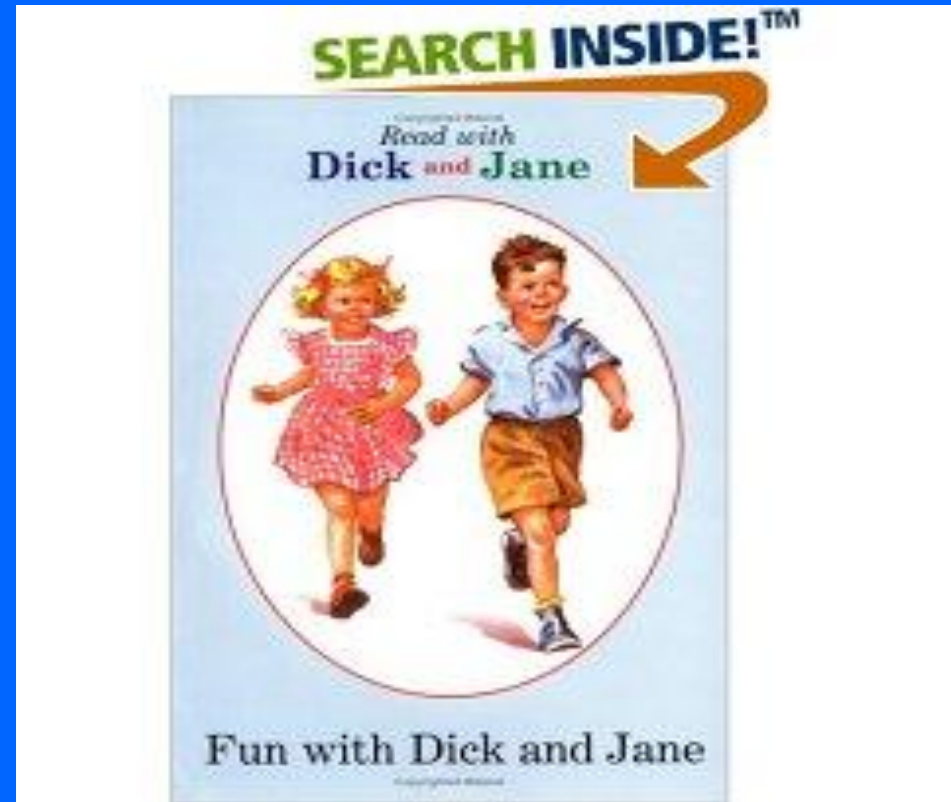
- Little awareness of context
- Individual, not household or work group
- Personalized networking
- Tailored media interactions
- Private concerns replace public civility
- Move from small towns to cities, suburbs
 - Less surveillance (except coveillance on Facebook)
 - Less caring for strangers, fewer weak ties
- Online interactions linked with offline



Family Togetherness in the 1950s

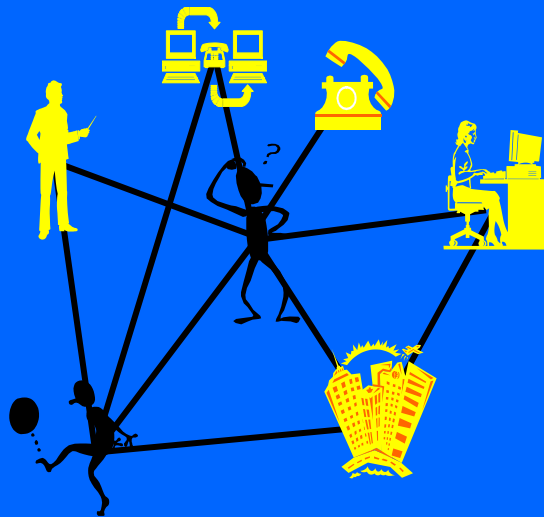


Ozzie & Harriet
Ricky & David

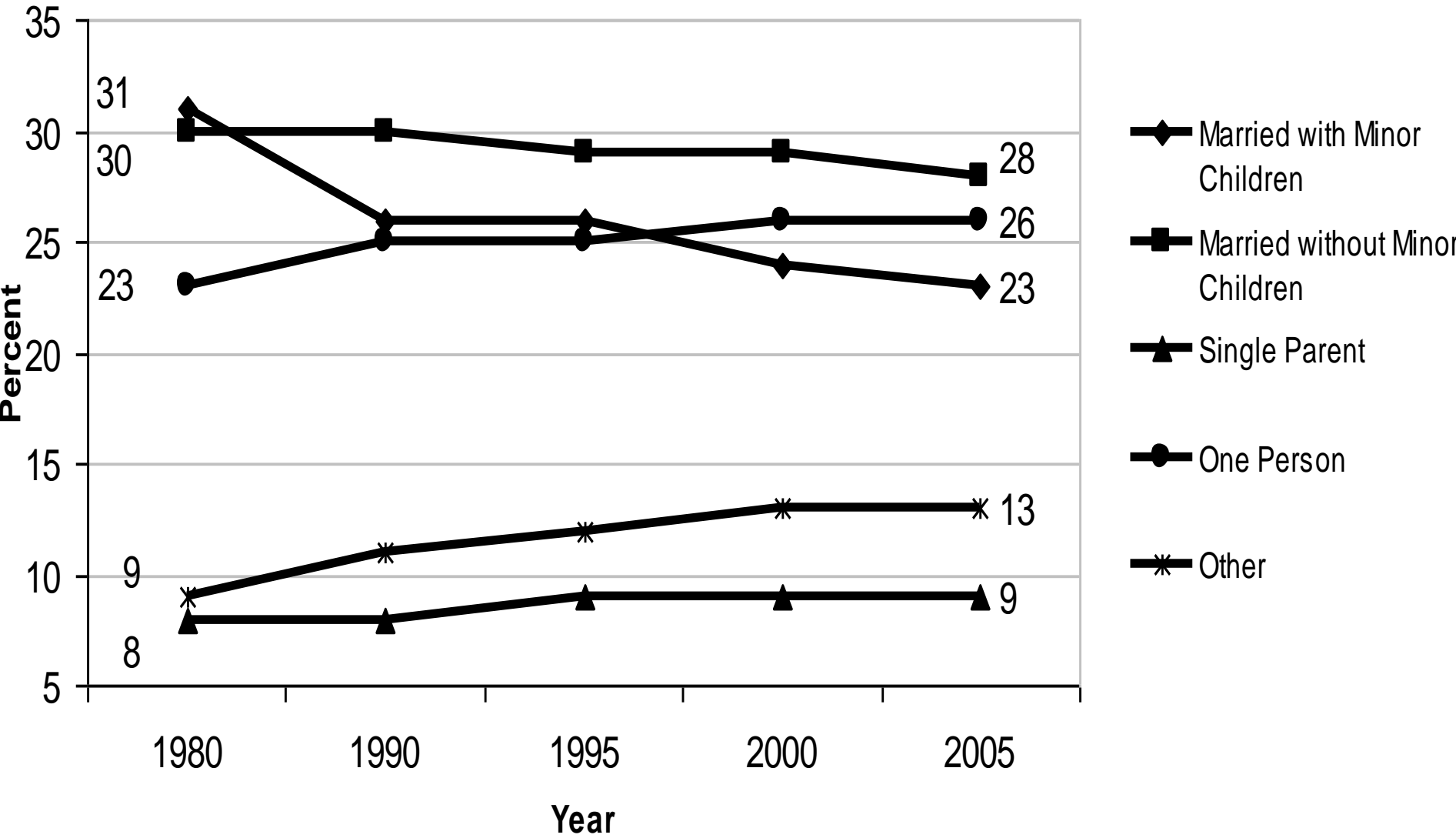


Households Have Become Home Bases

Family composition, roles and responsibilities have transformed households from groups to networks.



Distribution of Households in the U.S. (1980-2005)



% of households married with minor children declined by 1/4, 1980 -2005: 31% → 23%

Families operate networked; less as groups

Now act at times more like individuals in networks and less like members of a solidary family.

Spend less time doing things together as a group.

Homes are no longer their castles but bases for networking with the outside world,

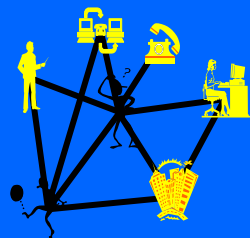
Each keeps a separate address book, calendar, mobile phone and internet account.

Adults and children connect through mobile phones.

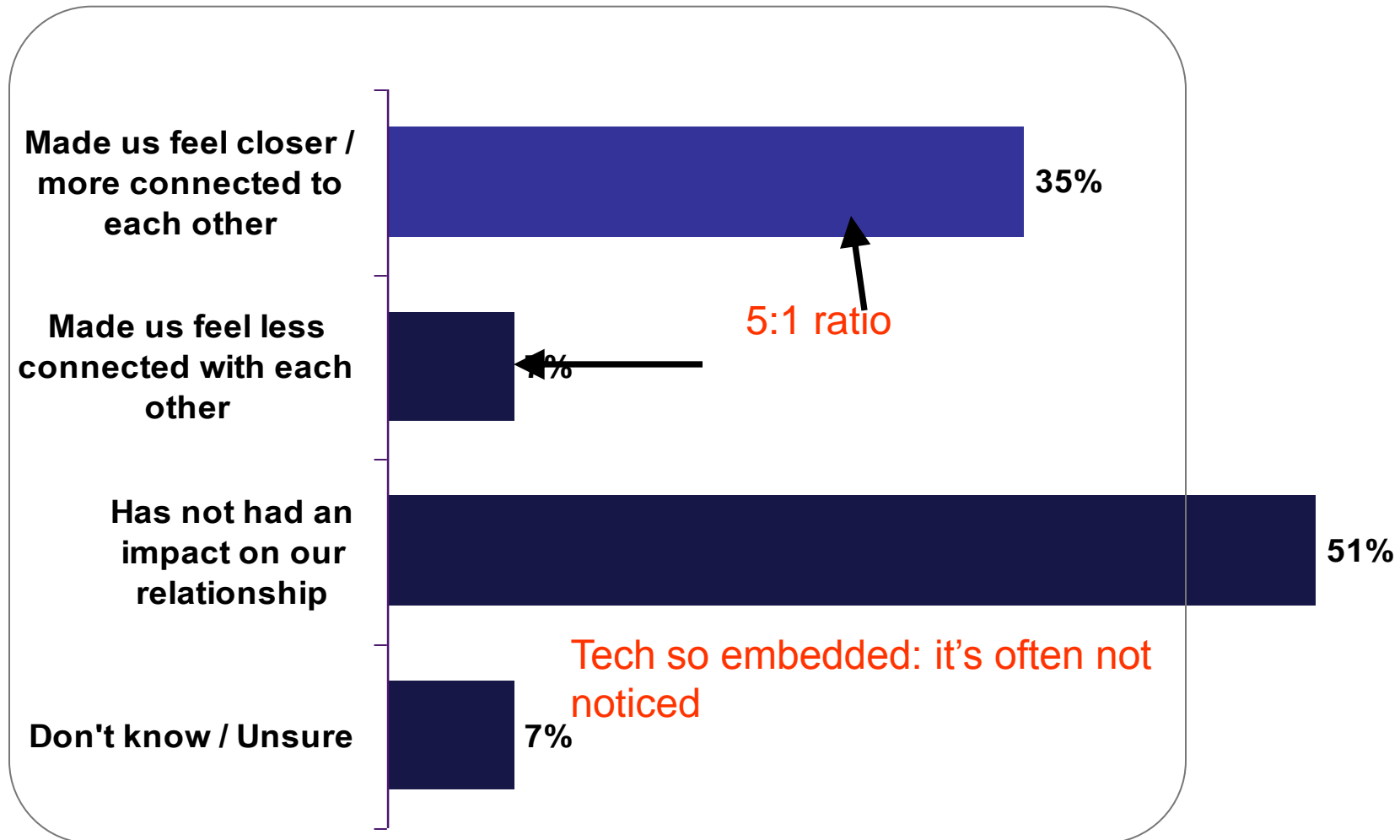
Family members punch holes in the home-work boundary: working at home or bringing work home.

Families function as networks

- Family members spend less in-person time together
 - Canadian Women @ home 36 minutes less than 1992
 - 9.1 Hours > 8.5 Hours
- Yet they are in more frequent contact, via internet and cell phones through the day
- Knowing what family members are doing all the time fosters unobtrusive surveillance:
 - The “ball and chain” has become the electronic leash



Technology has changed relationship with immediate family

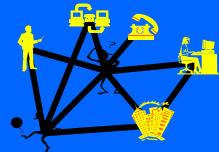


Source: Telus Canadians and Technology Survey, 2010

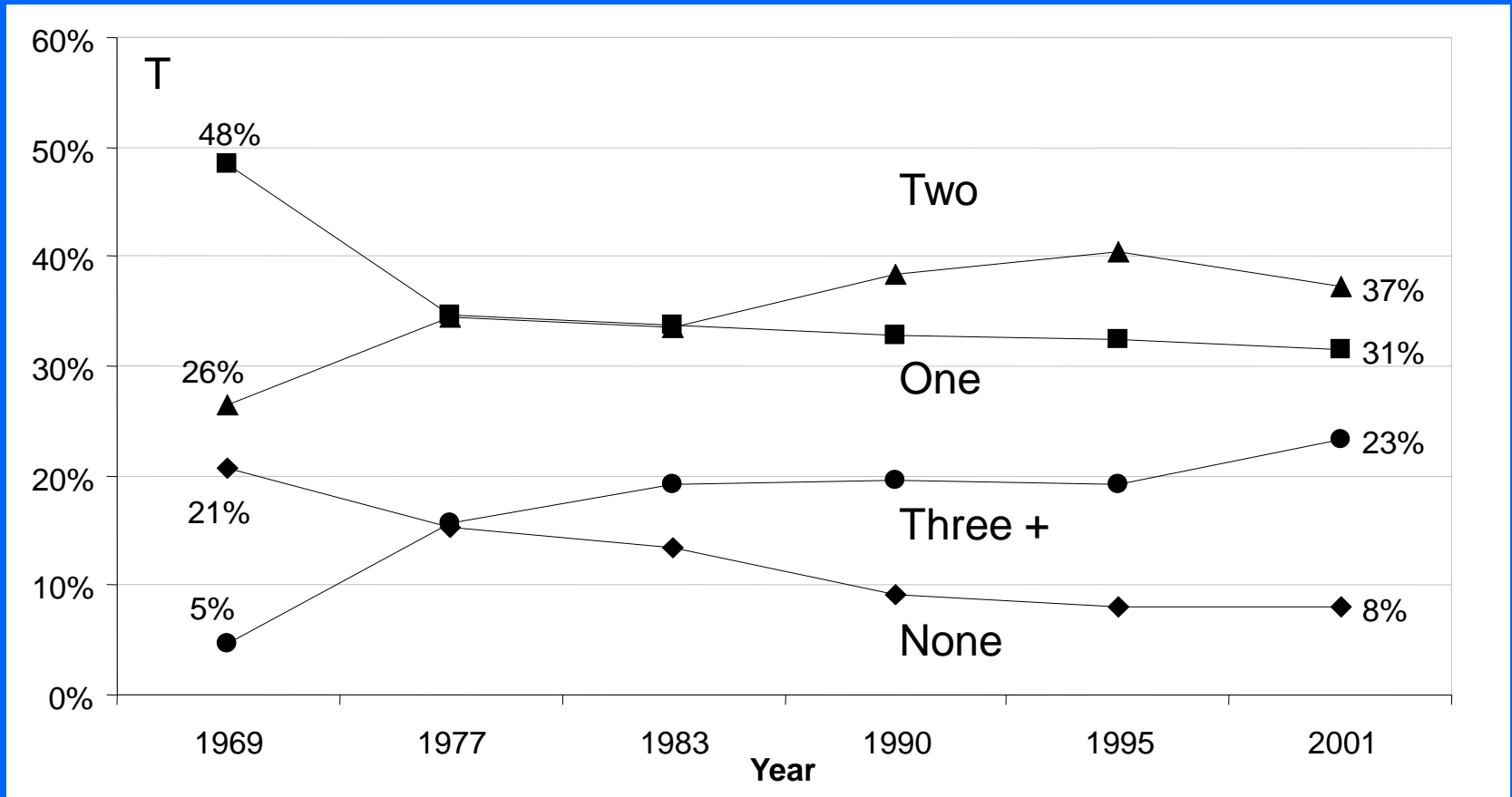
Widespread Connectivity

Automobile and airplane trips
have made travel wider-ranging
and broadly affordable →
Dispersed social networks

Inter-National peace →
Widespread travel & migration



Percentage of U.S. Households By Number of Vehicles



60% of Households Have 2+ Cars

Passenger Miles Up 60%: 900 Billion (1970) → 1.5 Trillion (2007)

Average miles driven rose 20%: 10K → 12K miles

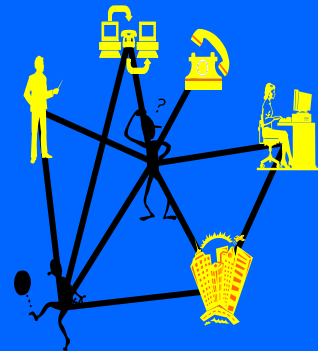
The rapid growth of affordable telecom & computing have made communicating & gaining information more powerful & more personal.

Direct dialing in 1930s, without operators

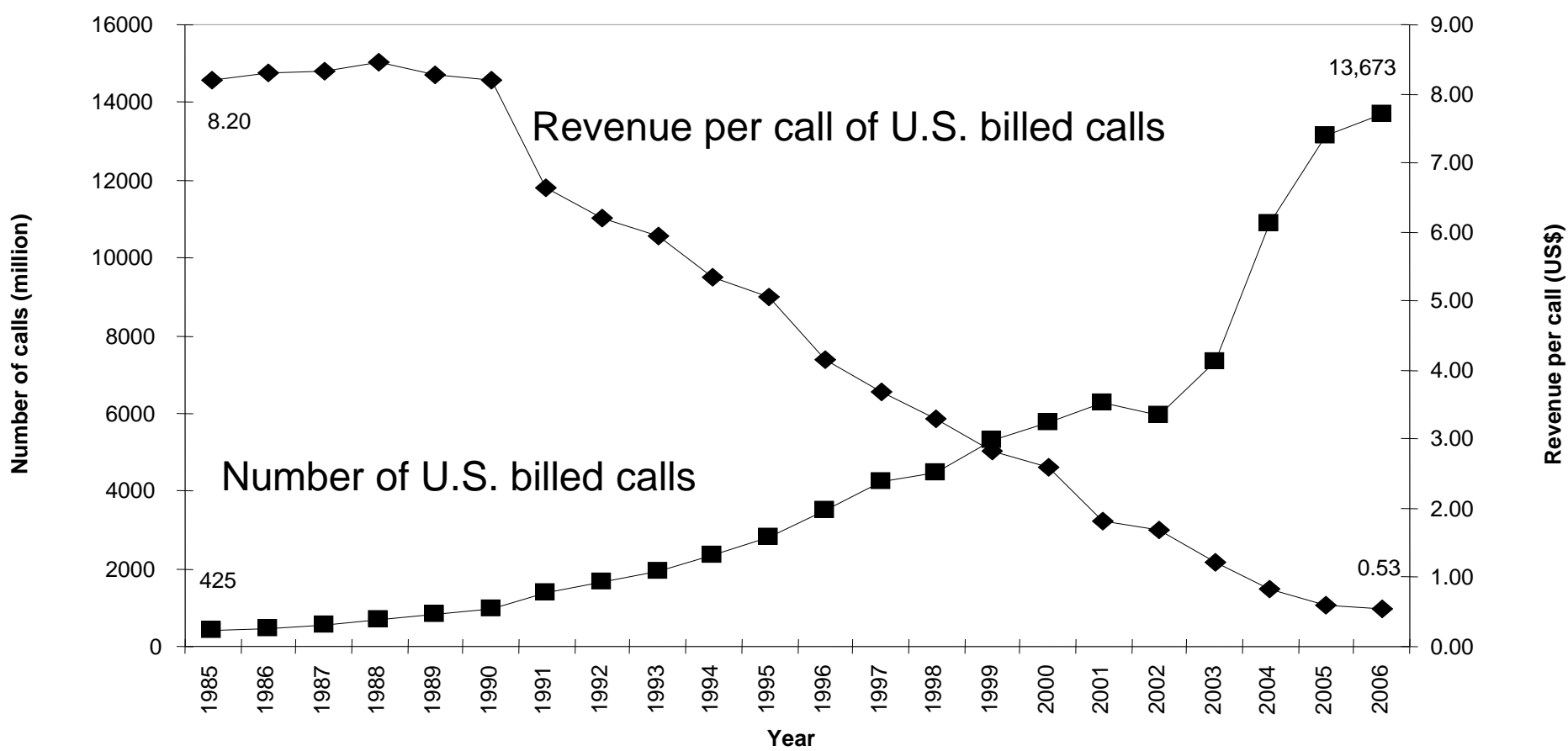
Direct distance dialing in 1960s:

area codes replace operators

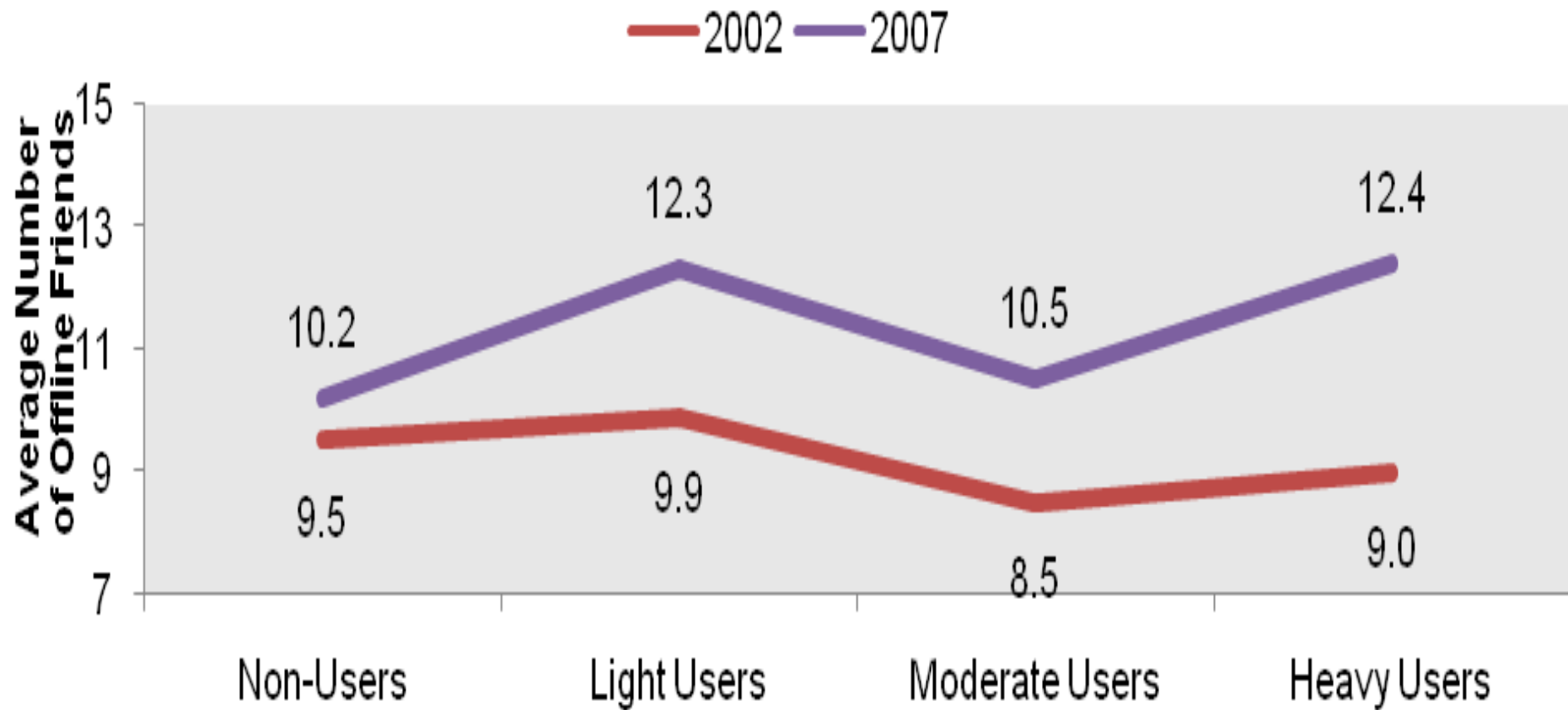
International calling becomes more affordable,
even before internet phone (Skype)



Number of and Revenue per U.S. Landline Calls



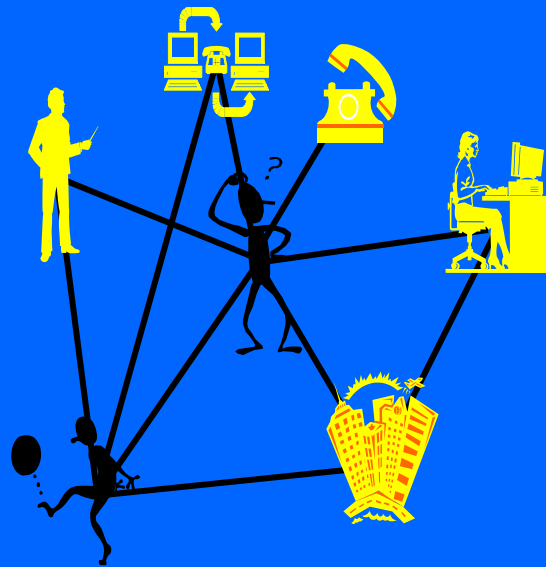
Friendship Growing – Especially for Heavy Internet Users



Source: Hua Wang & Barry Wellman, "Social Connectivity in America"
American Behavioral Scientist, 2010

Structured and bounded voluntary organizations supplanted by ad hoc, open & informal civic networks

See Robert Putnam, Bowling Alone, 2000



A broad movement towards a society based on achievement rather than on ethnic, gender, religion & sexual orientation

14.5% of US marriages are interracial

Few worry about inter-ethnic:

Protestant-Catholic-Jewish boundaries no longer immutable

Changing Interracial Marriage Norms

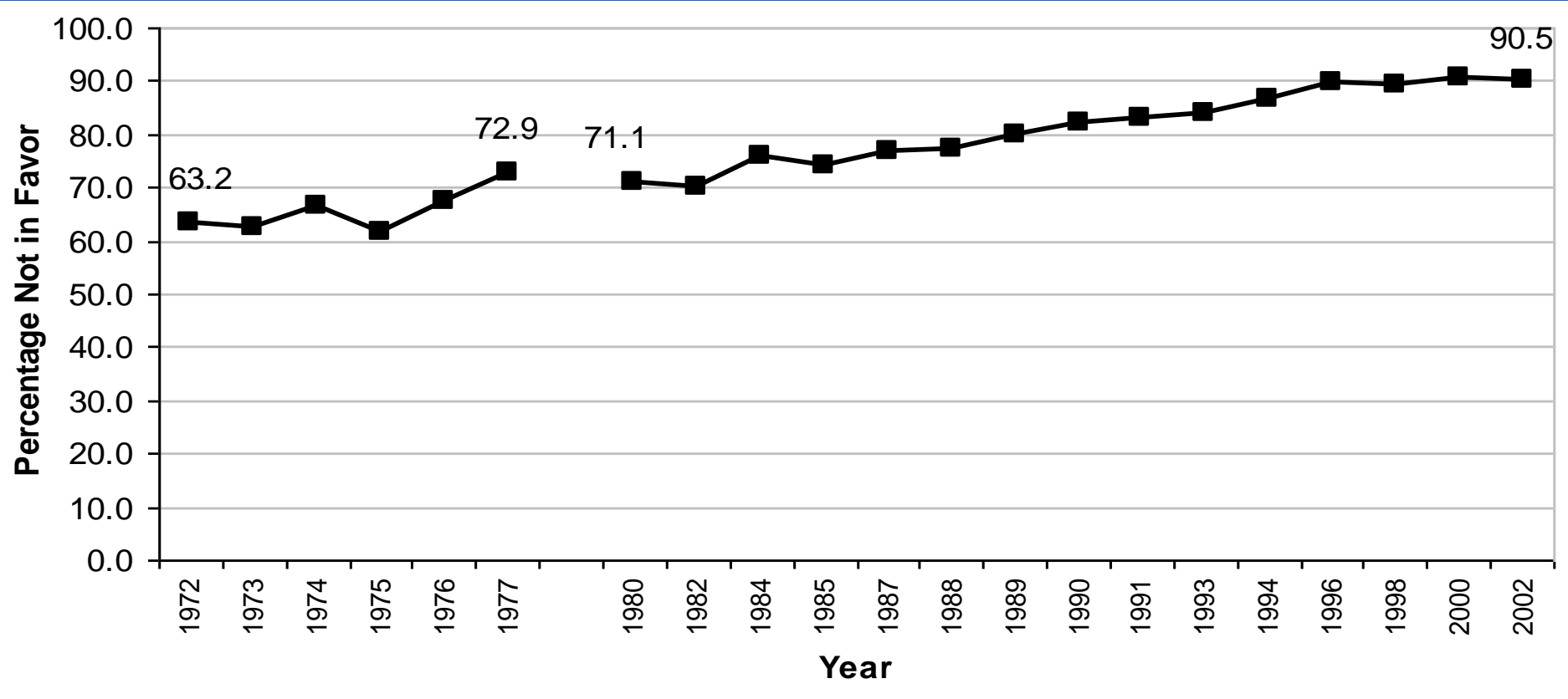
1967 Shocker



2010 Commercial Dating Ad

A screenshot of the eHarmony website. At the top left is the "eHarmony" logo. To the right, there's a small book icon and the text "Get Dr. Neil Clark Warren's latest book (FREE!)". Below the logo are navigation links: "HOW eHARMONY WORKS", "TAKE OUR TEST", and "LOGIN". The main content area features a large photo of a smiling couple. To the right of the photo, it says "Todd and Dawn Married: Sept. 19, 2004" and "See more eHarmony success stories". Below the photo, the text reads "when you're ready to find the love of your life." followed by a paragraph: "See why eHarmony.com is the fastest growing relationship site on the web. Take the eHarmony Personality Profile and get instant, objective feedback on yourself and how you relate to others. The eHarmony Personality Profile begins the exciting journey toward finding your true love." Below this is a green "GO" button and the text "FREE Personality Profile". At the bottom left, there's a login section with "Login to complete questionnaire or access account.", "USERNAME" and "PASSWORD" labels, input fields, and a "GO" button. Below the login fields is the text "Forgot your password?". At the very bottom, there's a navigation bar with links: "Home | About | Advice | News | Blog/Forum | Privacy | Affiliate | eHarmony | Gift Subscriptions | FAQ | Contact Us".

Percentage of Adult Americans Aged 18+ Who Would Not Favor A Law Against Racial Intermarriage



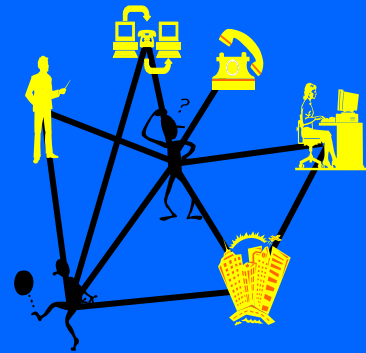
US Supreme Court Banned States Making Interracial Marriage Illegal, 1967

The shift away from traditional religion in America to do-it-yourself religion or no religion.

Switch away from religion of birth:

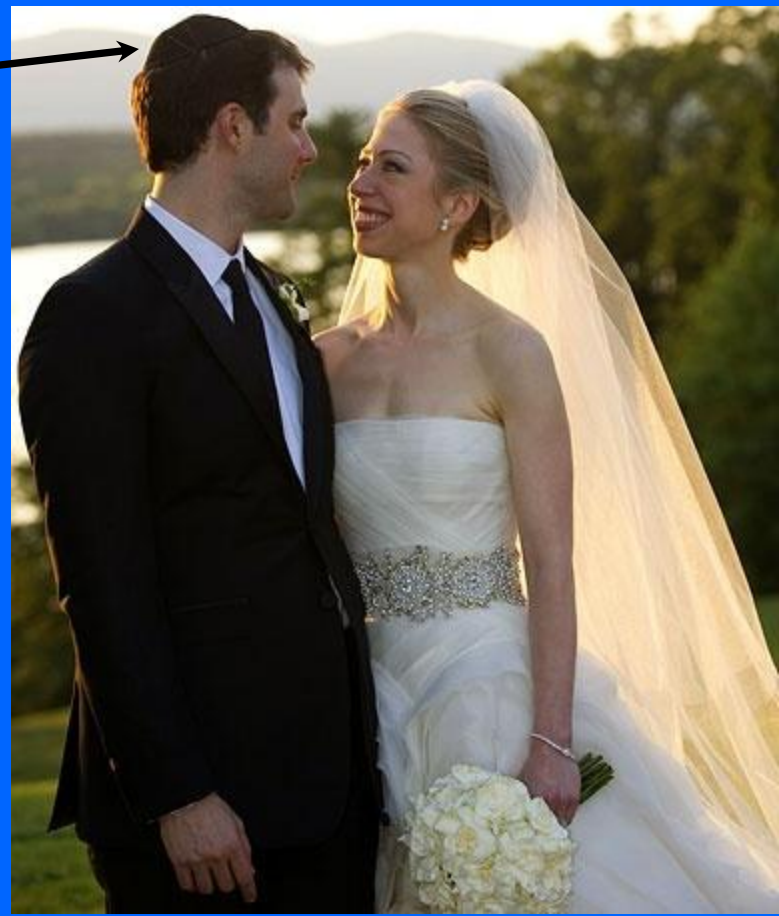
Catholicism (-8% net change); Baptist (-4%); Methodist (-2%)
Non-denominational Christianity (+3%); Unaffiliated (+9%).

Rise of Islam, Hinduism, Buddhism & Confucianism
in North America & Western Europe

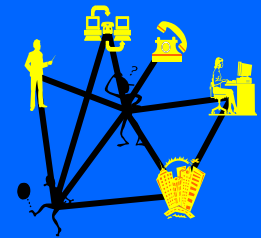


Interfaith: Ex-President Clinton's Daughter
Chelsea Marries Kepi-Wearing Marc Mezvinsky

Jewish
Kepi

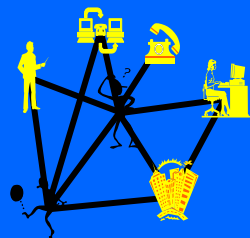


July 31, 2010

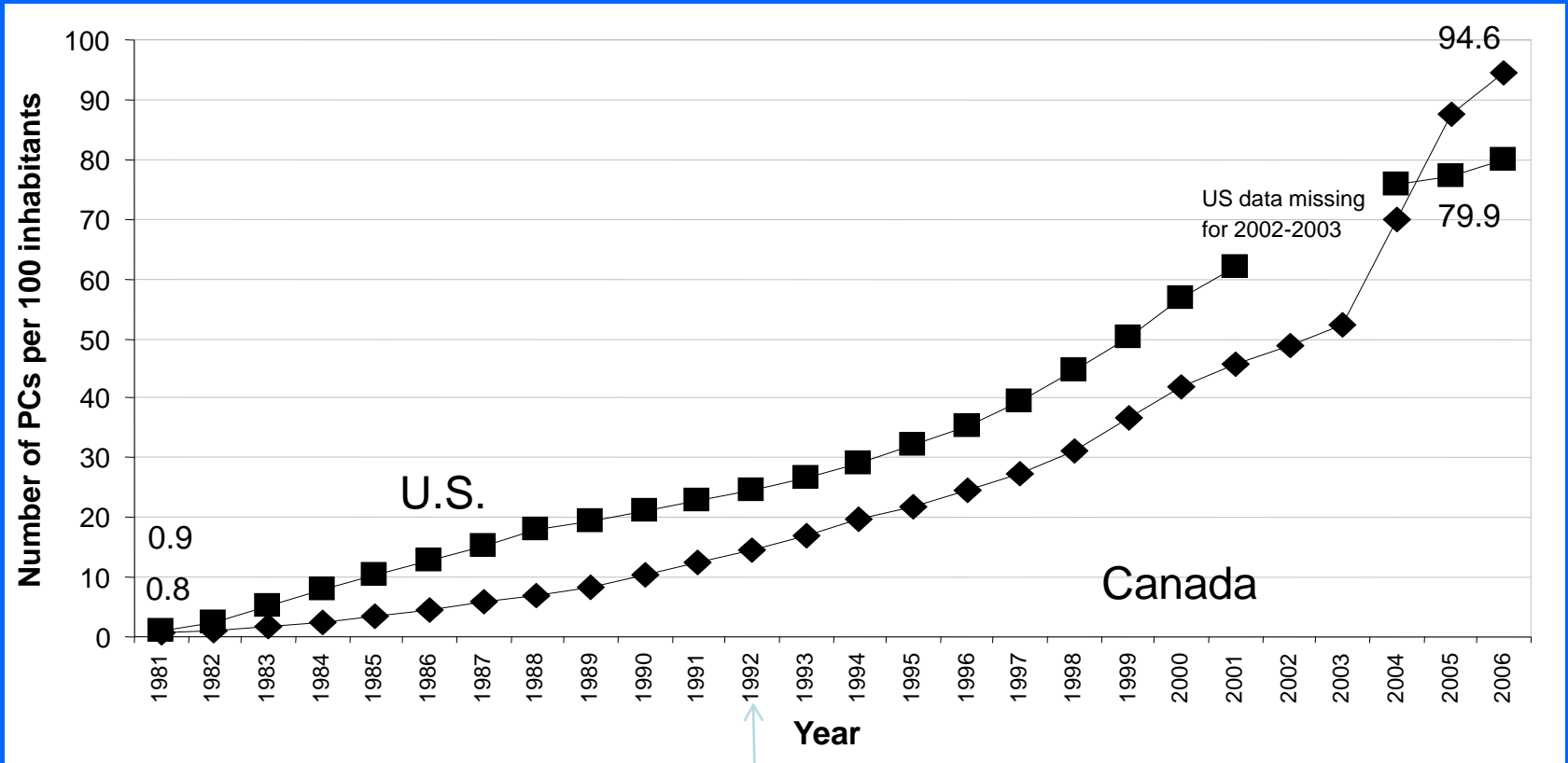


The Internet Revolution

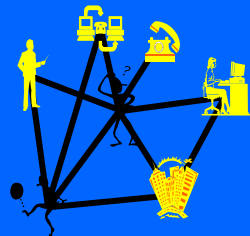
The *internet revolution* has given people communications power and information-gathering capacities that dwarf those of the past. It has also allowed people to become their own publishers and broadcasters and created new methods for social networking. *This has changed the point of contact from the household (and work group) to the individual.*



Number of Personal Computers In U.S. and Canada (1981-2006)

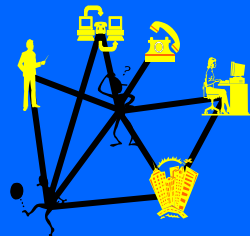


Internet Opened to Public



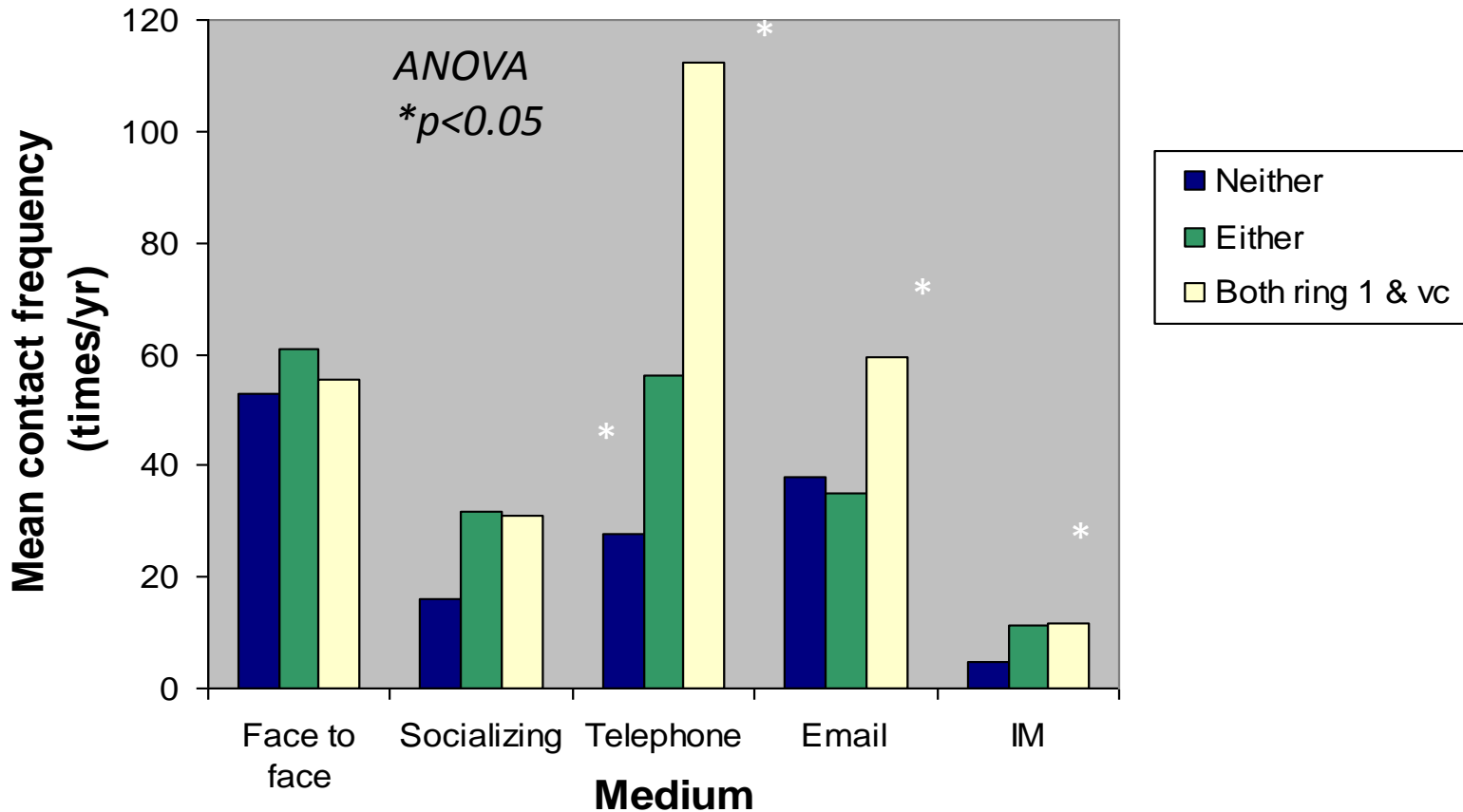
The Personal Internet Revolution *(thinking about the now-obvious)*

- Instant Access to Diverse, Copious Information
 - If You Know Where and How to Look
- Rapid, Low-Cost Communication
 - Distance, Time Much Less of a Constraint
 - Email as Frequent with Ties 3,000 km as 3 km
 - Yet most ties remain local – people have bodies!
- Increasing Volume and Velocity of Information & Communication



Regularly keep in touch with (frequency of contact)

Figure 3: Closeness by contact frequency



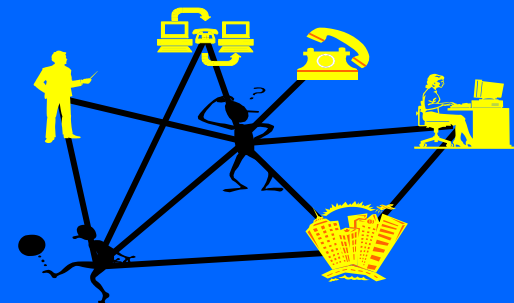
Yet Internet Fosters Neighboring

- Rooted at home computer → Jane Jacobs “eyes on the street”–unless mobile
- Multiplied number & range of neighbors
- Many emails, IM, cell calls/texts are local
- Increased contact with existing neighbors
 - Email, texting etc add on to F2F, phone contact – doesn’t replace them
- Demand for local information

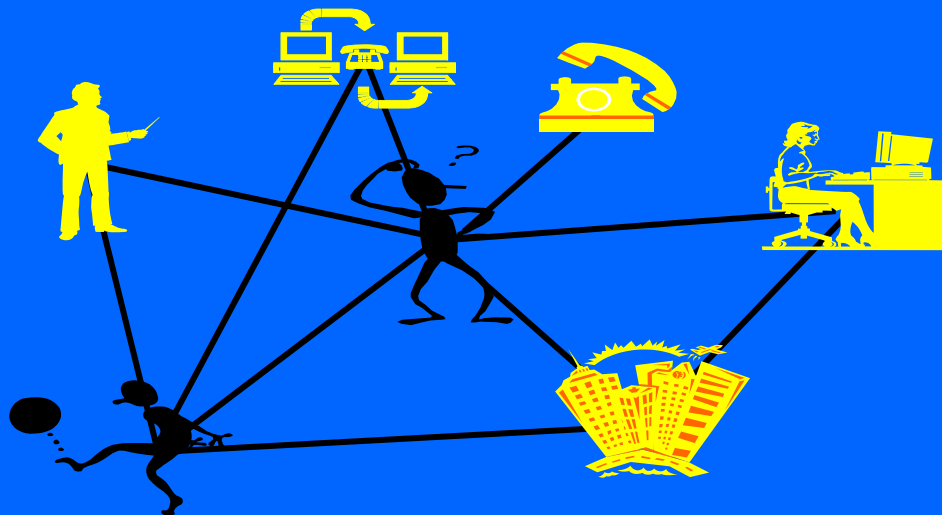
“Does Distance Still Matter in the Age of the Internet?”

Diana Mok, Barry Wellman, Juan Carrasco,

Urban Studies, 2010

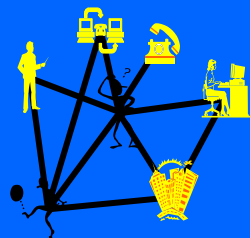


Common culture passed along through a small number of mass media firms has shifted to fragmented culture dispensed through more channels to more hardware. In addition to the internet & mobile info, TV has fragmented + YouTube, etc



The Mobile(-ization) Revolution

- The *mobile revolution* has allowed ICTs to become body appendages allowing people to access friends and information at will, wherever they go.
- In return, they are always accessible.
- That has major implications for social networking behavior and expectations
- – and access to information



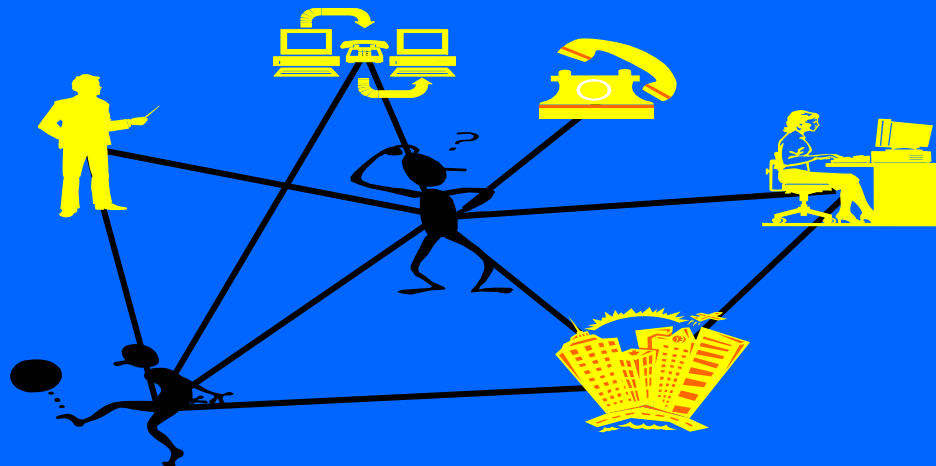
Life Without Mobile

Movie

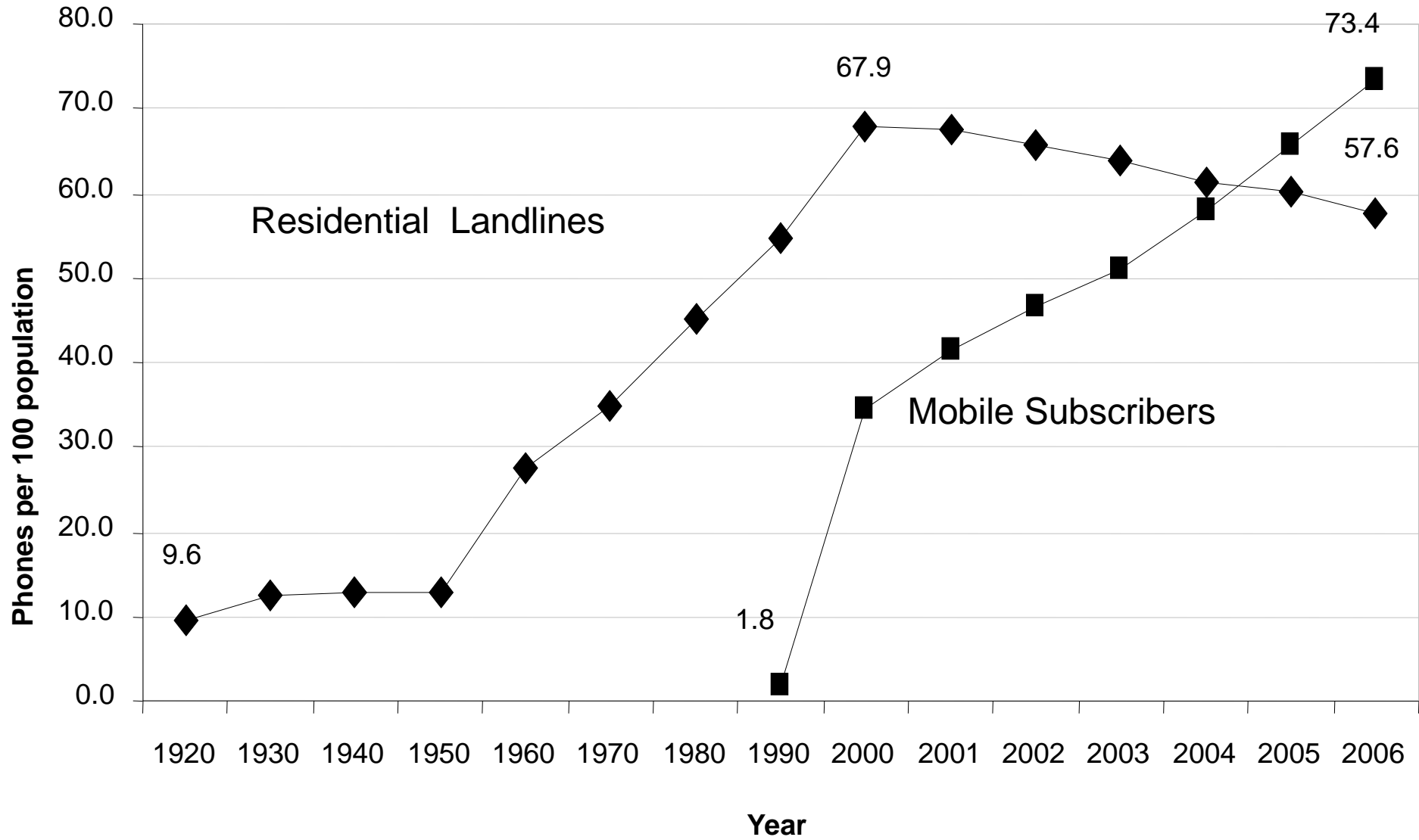
- *Rocky Horror Show*
- *Romeo & Juliet*
- *Ferris Buehler's Day Off*
- *Roman Holiday*
- *Message to Garcia*

Consequences

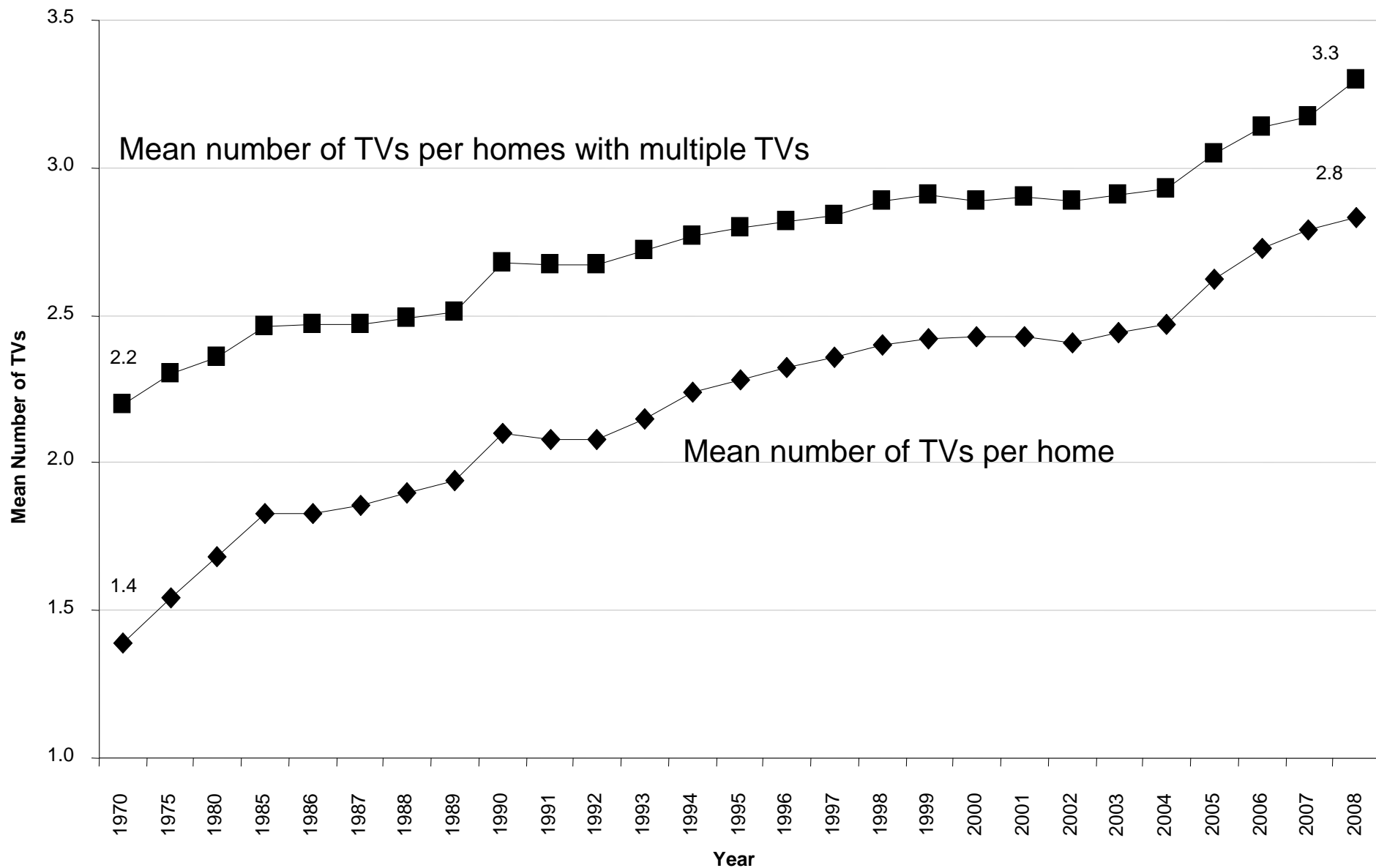
- Getting Lost & Trapped
- Failure to Communicate
- Deliberately Out of Touch
- Deliberately Out of Touch
- Failure to Coordinate



U.S. Residential Landlines and Mobile Phones



Number of Televisions per U.S. Household

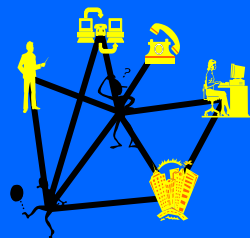


Increased Work Autonomy

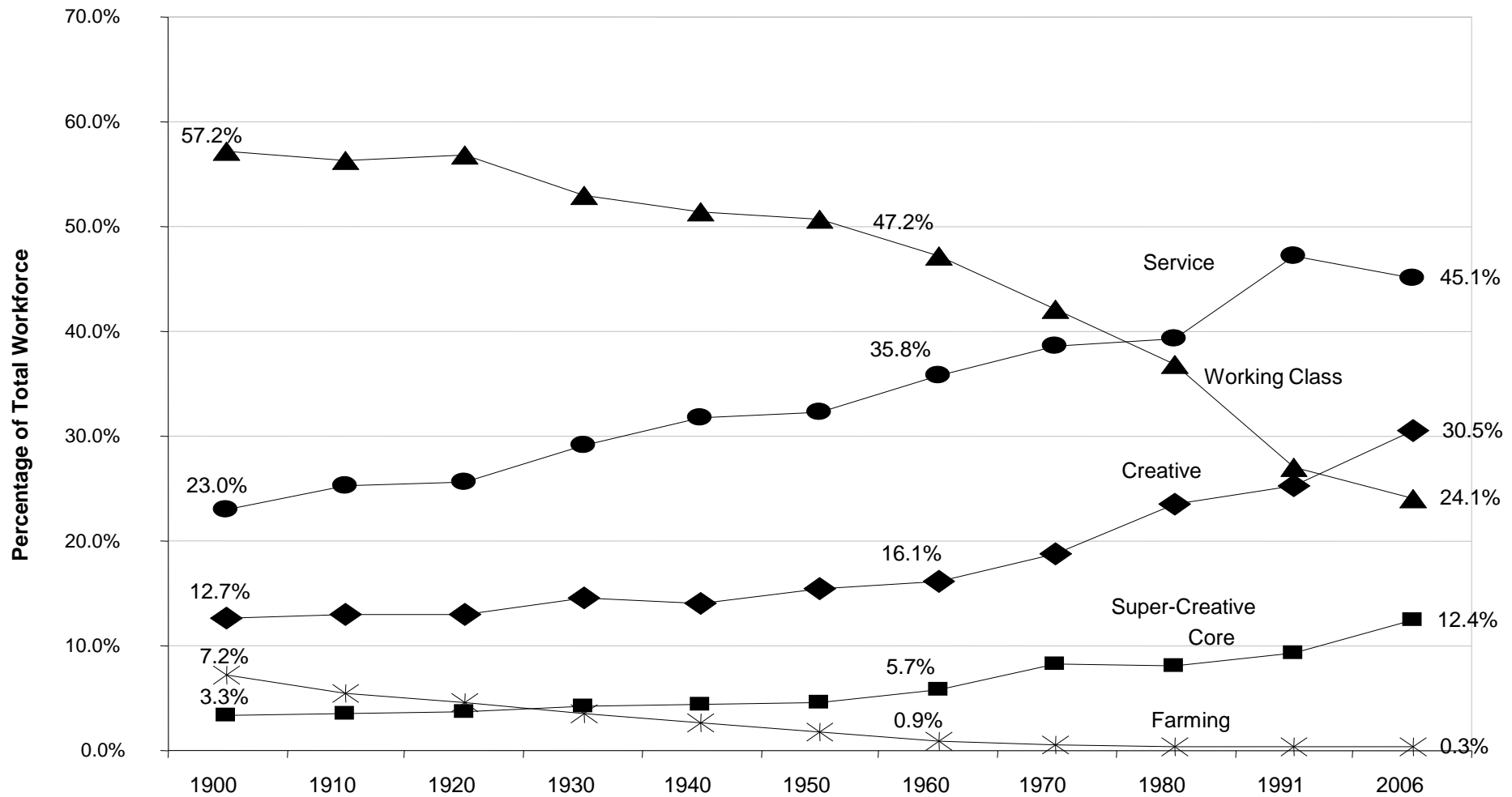
Work has become more flexible in the developed world

Shift from pushing atoms in manufacturing → pushing bits in white-collar “creative” work

- Networked Teams
- Distributed Work
- Flexible Schedules

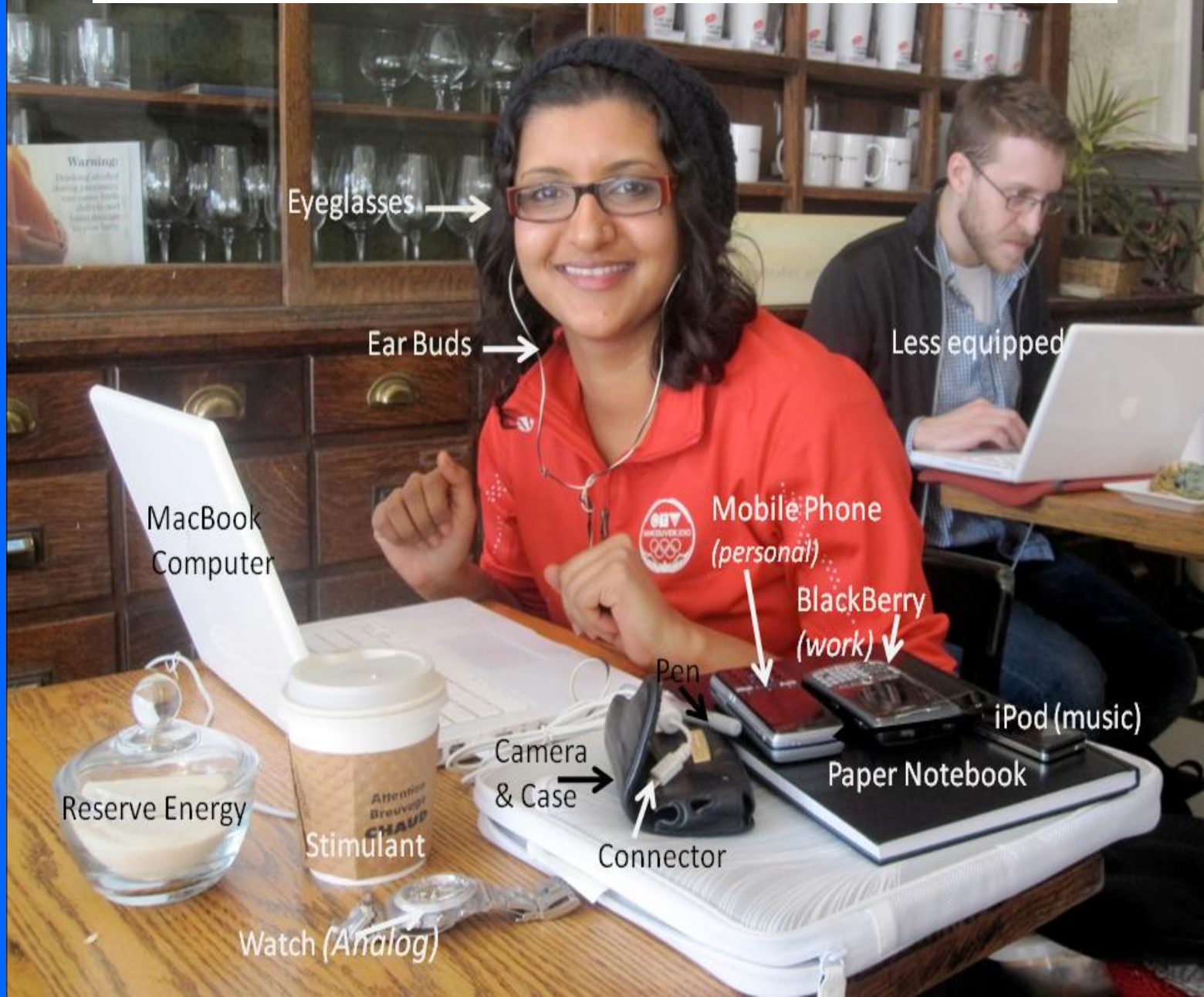


Percentage of Creative Class “Bit Workers” In the U.S.



Source: Kevin Stolarick & Richard Florida, Martin Prosperity Institute, University of Toronto

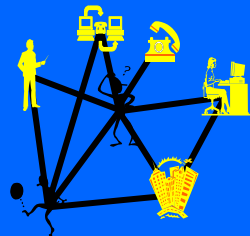
Nelu Handa @ Internet Cafe



In a Nutshell

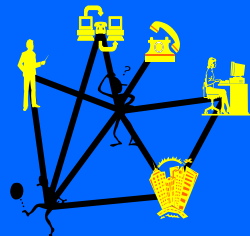
The Triple Revolution: Social Network, Internet, Mobile

1. People function more as networked individuals
2. Families function as networks, not groups
3. Social networks are larger
4. More internet use → more in-person contact
5. Work at home & away: part-time, full-time
6. Networks are sparsely-knit, loosely-bounded
7. ICTs provide more & more diverse information
8. Shift to interest-based communities
9. Public-private boundaries blurring
10. Transportation fungible, additive with ICTs



To Learn More

- International Network for Social Network Analysis www.insna.org
 - Los Angeles, 3/12
- Communication & Info section, American Sociological Assoc, Las Vegas 8/12
- Communications & Tech section, International Comm Assoc, Phoenix, 5/12
- iSchool Conference



Networked: The New Social Operating System

Part I: The Triple Revolution

The Social Network Revolution

The Internet Revolution

The Mobile Revolution

Part II: The Triple Revolution in Practice

Networked Relationships

Networked Families

Networked Work

Networked Creators

Networked Information



*Lee Rainie & Barry Wellman
MIT Press, January 2012*

Part III: What Is – What Will Be

Thriving with Networked Individualism

The Future of the Triple Revolution

**Thank
You !!**

